

THE
SOUTHERN AGRICULTURIST.

DECEMBER, 1839.

PART I.

EDITORIAL AND ORIGINAL.

The Agricultural Convention.

In accordance with the wishes of the people of most of the Districts in our State, the Delegates to the Convention assembled in the Hall of the House of Representatives, on the evening of Monday, November 25th.

On motion of Dr. R. W. Gibbes, Whitefield Brooks, Esq. was requested to take the Chair, which he did. Dr. Gibbes having been called upon to act as Secretary, the meeting was organized.

The Delegates having been called upon to register their names, the following gentlemen appeared and took their seats.

From Marlborough.

James Gillespie,
W. T. Ellerbe,

John McQueen,

Chesterfield.

Thomas E. Powe,

J. Wright.

Marion.

Thomas Evans,
William Evans,

B. Moody.

Edgefield.

W. Brooks,
James Terry,

A. P. Butler,
J. O. Nicholson.

Darlington.

Thomas E. McIver,
W. H. Cannon, Sen'r,
W. Wingate,

Thomas P. Lide,
J. F. Ervin.

Fairfield.

J. J. Myers,
W. K. Davis,
Edward Means,

J. B. Davis,
J. H. Means,
D. Elkin.

Chester.

T. W. Moore,

J. D. Crawford.

Richland.

F. H. Elmore,
James Gregg,

Robert W. Gibbes,
Robert Henry.

Sumter.

John P. Richardson,
Dr. St. P. DuBose,
Isaac Lenoir,

James B. Richardson,
Thomas J. Wilder,
J. W. English.

Anderson and Pickens.

J. W. Norris,
J. N. Garvin,
Thomas Pinckney,

J. P. Reed,
Jesse M'Kinney,

Spartanburgh.

H. H. Thompson,
John W. Hunt,
William K. Poole,

John Crawford,
Samuel N. Evans.

Orange and St. Matthews.

John M. Felder,
S. B. Dwight,
Elisha Tyler,

S. Glover,
Jacob Stroman,
D. F. Jamison.

Lancaster.

Benjamin Massey,
M. Clinton,
William Reed,

J. P. Crockett,
John M. Baskin,

Abbeville.

John A. Calhoun,
A. B. Arnold,
D. L. Wardlaw.

P. F. Moragne,
James Fair,
George McDuffie.

Newberry.

Simeon Fair.

Greenville.

Bannister Sone.

Barnwell.

Charles R. Carroll,
W. S. Reynolds,
James D. Erwin,

J. H. Hammond,
W. Gilmore Sims.

Lexington.

J. A. Addison,
J. C. Geiger,
L. Boozer,

L. Pou,
W. F. Percival,
H. J. Caughman.

St. Philips' and St. Michael's.
 F. D. Quash, W. Washington.
St. John's Berkely.
 John H. Dawson, P. P. Palmer.
St. Andrew's.
 W. Lawton, B. R. Carroll.
 William J. Bull,
St. John's Colleton.
 W. M. Murray, J. Jenkins Mikell.
St. Helena Island.
 J. A. Scott.
Prince Williams.
 John E. Frampton.
Prince George Winyaw.
 R. F. W. Allston.
All Saints.
 B. F. Dunkin.

On motion of B. R. Carroll, Esq. Col. F. H. Elmore was unanimously elected President of the Convention, and a Committee of three designated to attend him to the Chair.

The President having addressed the Convention, and stated that the meeting was ready to receive resolutions,

Dr. James B. Davis proposed the following resolution, which was passed.

Resolved, That the President appoint four Vice-Presidents for this Convention. Whereupon the following gentlemen were appointed :

Col. R. F. W. Alston, of Prince George Winyaw.

Gen. George McDuffie, of Abbeville.

Gen. James Gillespie, of Marlboro',

William Elliott, Esq., of Beaufort.

B. R. Carroll, Esq. introduced the following resolution, which was carried.

Resolved, That a Committee of fifteen be appointed, to arrange business for the Convention.

The Chair then named the following gentlemen :

B. R. Carroll, of St. Andrews.

W. T. Ellerbe, of Marlboro',

Thomas Evans, of Marion,

William H. Cannon, of Darlington.

James B. Davis, of Fairfield,

J. Gregg, of Richland.

W. Reynolds, of Barnwell.

J. P. Richardson, of Sumter.

A. B. Arnold, of Abbeville.
J. H. Hammond, of Barnwell.
F. D. Quash, of St. Philip and St. Michael.
J. A. Scott, of St. Helena Island.
B. F. Dunkin, of All Saints.
W. Brooks, of Edgefield.
B. Massey, of Lancaster.

Dr. Davis moved that the Committee be allowed until 6 o'clock to-morrow evening to prepare their Report—which was agreed to.

On motion of Charles R. Carroll, Esq. the Convention adjourned till 6 o'clock on Tuesday evening.

TUESDAY, NOV. 26, 1839.

The Convention met agreeably to appointment at six o'clock. The minutes of the first meeting were read.

On motion of H. J. Caughman, Esq. it was

Resolved, That Delegates who are present, who have not registered their names in the Secretary's book, be requested to do so.

The following gentlemen appeared, enrolled their names, and took their seats.

From Fairfield.—W. J. Alston, John M. Robertson, Burrel B. Cook.

From Sumter.—Hon. J. S. Richardson.

From Anderson.—J. B. Reed, J. E. Calhoun.

From Richland.—R. H. Goodwyn, D. D. Fenley.

From Edgefield.—M. Watson.

From Lexington.—H. Arthur.

From Union.—Z. P. Herndon

From Prince George Winyaw.—Thos. G. Carr.

The President called for the Report of the Committee of fifteen, when the Chairman, B. R. Carroll, Esq. submitted the following

REPORT:

The Committee appointed to prepare business for the Agricultural Convention, beg leave respectfully to report, That after an inquiry in which the sentiments of the different sections of our State have been consulted, they are of opinion that the following subjects are fit and proper for the consideration of the Convention, viz :

1. The creation by the Legislature, of an Agricultural Professorship in the South-Carolina College.

2. The appropriation by the Legislature of a sum of money to defray the expenses of a Geological and Agricultural Survey of the State.

3. The establishment of an Agricultural School in some central and healthy position of the State.

4. The establishment of a State Board of Agriculture, to meet at Columbia or some where else in the State.

5. The introduction into our free schools of some elementary work on Agriculture.

In limiting their recommendation to the propositions alluded to, the Committee have done so with the view of not crowding upon the Convention the consideration of too many topics of absorbing interest. They believe that the fault of our Agricultural meetings has heretofore been, that they have attempted too much, and done too little. Hoping, therefore, that they have selected such matters as will interest the Convention, they beg to be discharged from the further consideration of the subject.

James H. Hammond, Esq. moved that the report be laid upon the table—but on request withdrew his motion, in order that the subject contained in the report might be discussed.

Charles R. Carroll, Esq. addressed the Convention in support of the first proposition contained in the report. He was followed by James H. Hammond, Esq. who attacked the entire report, and declared his unwillingness to support any of the measures recommended in the same.

B. R. Carroll, Esq. suggested, that the object of the report was mistaken, inasmuch as it only suggested topics for the consideration of the Convention, and did not recommend them for adoption. He urged the propriety of having the report received, after which, each topic contained in it might be distinctly discussed, and put to vote for adoption.

John A. Calhoun, Esq. also addressed the Convention in reply to Mr. Hammond—and condemned the ultra course he had taken.

B. R. Carroll, Esq. then moved to consider the propositions of the report separately, and to add to the first and second propositions, the words, "and that the same

be recommended to the Legislature ;" so that they would read as follows :

1. The creation, by the Legislature, of an Agricultural Professorship in the South-Carolina College, and that the same be recommended to the Legislature.

2. The approbation, by the Legislature, of a sum of money to defray the expenses of a Geological and Agricultural Survey of the State, and that the same be recommended to the Legislature.

Col. Hammond moved to lay the first proposition on the table, which was agreed to. He then moved to lay the second proposition on the table, which was rejected. The Ayes not being satisfied, the votes were taken by tellers, when it was found that there were 34 Ayes and 57 Noes. So the second proposition was before the meeting.

H. H. Thompson, Esq. moved, "that upon that proposition, there should be a division of the question, and that the vote should be taken on the propriety of recommending a Geological Survey apart from an Agricultural Survey."

B. R. Carroll, Esq. advocated the propriety of connecting both Surveys—and at the conclusion of his speech, it was moved, by Dr. Arnold, that the Convention do now adjourn, to meet on to-morrow evening at half past 5 o'clock.

The Convention then adjourned.

WEDNESDAY, NOV. 27, 1839.

The Convention was organized at the hour appointed. The minutes of the previous meeting were read.

The President stated that the Convention was prepared for business, and that the subject for their consideration was "the propriety of recommending to the Legislature a Geological Survey apart from an Agricultural Survey of the State."

Gen. McDuffie addressed the Convention in favor of the resolution, which was carried by a large majority.

The question was then put on the second part of the proposition, as divided, viz : "On the propriety of recommending to the Legislature an Agricultural Survey of the State," and carried by a vote of 38 Ayes, 32 Noes.

The question then recurred on the second original proposition, as reported by the Committee as follows :

The appropriation, by the Legislature, of a sum of money to defray the expenses of a Geological and Agricultural Survey of the State, and that the same be recommended to the Legislature—which was agreed to.

The third, fourth, and fifth propositions were put and rejected.

The Report of the Committee, as amended, was then submitted to the meeting, and adopted ; and, on motion of Dr. A. B. Arnold, the President, was requested to transmit a copy to both branches of the Legislature.

The Report, as Adopted.

The Committee appointed to prepare business for the Agricultural Convention, beg leave respectfully to report, that after an inquiry, in which the sentiments of the different sections of our State have been consulted, they are of opinion that the following is a fit subject for the consideration of the Convention, viz :

The appropriation by the Legislature, of a sum of money to defray the expenses of a Geological and Agricultural Survey of the State, and that the same be recommended to the Legislature.

In limiting their recommendation to the proposition alluded to, the Committee have done so with the view of not crowding upon the Convention the consideration of too many topics of absorbing interest. They believe that the fault of our Agricultural meetings has heretofore been, that they have attempted too much, and done too little. Hoping, therefore, that they have selected such a matter as will interest the Convention, they beg to be discharged from the further consideration of the subject intrusted to them."

At the request of J. M. Felder, the Hon. A. P. Butler, who had voted in the affirmative, moved a reconsideration of the Report, in order that he might propose an amendment thereto, which was agreed to. He then proposed the following amendment to the Report :

Resolved, That it be recommended to the Legislature to take measures to secure a sound and stable currency to this State.

Major Felder spoke at length in favor of his motion. Hon. A. P. Butler said a few words in opposition, and proposed to lay it on the table, which was carried.

Dr. James B. Davis then introduced the following resolutions :

1. *Resolved*, That a State Agricultural Society be formed forthwith, to meet in Columbia.

2. *Resolved*, That the Society be recommended to establish an annual Fair and Stock Show in the town of Columbia, with suitable premiums for the finest animals exhibited, &c. The exhibition to be held on the first week of the session.

3. *Resolved*, That the Society be also recommended to offer suitable premiums for the best lots of cotton, best variety of corn, small grain, &c.

4. *Resolved*, That the Society be also recommended to offer suitable premiums for the best Essay on the cultivation of rice, corn, small grain, cotton and the grasses, embracing in each essay a complete manual in the whole operations of a plantation, of each of these products, of suitable size, comprehending management of negroes and stock, improving lands, &c.

5. *Resolved*, That said Society be divided into committees allotted to each and every district branch of Agriculture, embracing Geology, introduction of foreign seeds, &c.

6. *Resolved*, That the Society provide the means of paying these premiums by an annual tax on the members.

7. *Resolved*, That the Convention recommend to each district to form Agricultural Societies.

These resolutions were seconded by James H. Hammond, Esq. in a speech of some length.

W. Brooks, Esq. proposed the following amendment, which was adopted.

Resolved, That as an efficient auxiliary towards the accomplishment of this high and honorable purpose, it is expedient to aid in the establishment of a cheap Agricultural paper, to be issued weekly at the seat of Government, and that the same be recommended to the patronage of the public.

Dr. Davis proposed the following amendment to his resolutions, which was adopted.

Resolved, That this Convention recommend to public patronage, as a means of diffusing Agricultural information, such papers as may be published in the State, hav-

ing for their object, the diffusion of all matters pertaining to Agriculture.

J. E. Colhoun, Esq. moved to lay on the table the last two resolutions relating to Agricultural papers, which motion was rejected.

Gen. J. H. Adams called for a division of the question on Dr. Davis's resolutions, and that the first resolution be considered separately, which was agreed to, and the resolution adopted, viz :

Resolved, That a State Agricultural Society be formed forthwith, to meet in Columbia.

Mr. Davis then moved, that a Committee of nine be appointed by the Chair, to report to this Convention to-morrow evening, a proper plan for the organization of a State Society, and that the remaining six resolutions of Dr. Davis, be referred to them—agreed to.

B. B. Cook, Esq. moved, that this Convention recommend to the Legislature to require the several Tax Collectors of this State, to take a return annually of the sums paid by each person in their respective districts and parishes, for western produce, viz : for hogs, horses, and mules, and make a return thereof to such officer as they may direct. This resolution, after a speech in its support, by B. B. Cook, Esq. was adopted, and, on motion of Major Felder, his resolution was taken up, and referred to the Committee of nine.

The President announced the following gentlemen to compose the Committee :

Hon. George McDuffie, of Abbeville.

Dr. James B. Davis, of Fairfield.

Hon. J. P. Richardson, of Sumter.

Hon. B. F. Dunkin, of All Saints.

Hon. James Gregg, of Richland.

Hon. R. F. W. Allston, of Prince George Winyaw.

Col. Thomas Pinckney, of Pendleton.

W. Brooks, Esq. of Edgefield.

W. Gilmore Sims, Esq. of Barnwell.

The President read a communication from Dr. S. Blanding, presenting two copies of the New-England Farmer, from Mr. J. Breck, of Boston, which was referred to the Committee of nine.

W. Gilmore Sims, Esq. introduced the following pre-

amble and resolutions, which he requested to be laid on the table.

Whereas, in consequence of the scattered condition of our settlements throughout the country, the present plan of poor school education is found inoperative in most instances, and partial and unsatisfactory in all—those towns and cities alone excepted, where the number of pupils is sufficiently great to justify the employment of competent teachers. Be it recommended to the General Assembly of the State now in session, that a tract of land, not to contain less than fifteen hundred nor more than five thousand acres, centrally chosen, or as nearly so as practicable, be procured in each of the districts, with which the poor-establishment of such district shall thenceforward be endowed—that on the said tract of land, suitable buildings shall be erected for the reception and accommodation of such a number of poor boys as, according to the census of the district, it shall be likely to contain—that provision be made of all the usual and necessary utensils for farm culture, as practised in said district—that it be moderately stocked with horses, cattle, sheep, and all such other animals as are found useful in such an establishment—that when this is done, a teacher of known intelligence and integrity be procured, who shall receive an adequate salary for the tuition of all pupils who may be placed under his care by the commissioners of the said district. And that for certain periods in the day, and in certain classes and divisions, to be hereafter determined by the commissioners, he shall have entire control of their studies and their time—that at all other periods the said pupils shall be placed under the control of a competent intendant or overseer, who shall direct their labors and industry while preparing them as farmers and planters for the proper performance of such duties in after life as may seem best to correspond with their condition and necessities. And that the commissioners of each district be empowered to receive as indented apprentices to the poor school of said district, on behalf of the State, all such boys, the parents of whom may be found desirous of securing for them the advantages of such tuition, and all such orphans as, governed by a praiseworthy ambition, may be willing to avail themselves of the same—the term

of apprenticeship, in no case to be less than three, nor more than seven years—unless in the case of such youth as may be already greatly advanced towards the years and purposes of manhood, and who, at the discretion of the commissioners, may be received for a still shorter period :

Be it recommended yet farther, that, on the same plantation or tract of land, but removed from close proximity to the dwellings and the school-house of the boys, there be erected suitable houses for the reception and accommodation of poor girls, who shall be placed under the tuition of one or more female superintendents, from whom they shall learn the ordinary elements of a plain English education—and in addition, such duties of a farm and household, as ordinarily devolve upon females in our country—that they shall spin, weave and sew, attend to poultry and the dairy, the culture of the silkworm, if it be deemed advisable, and be taught also to fashion and make their own and the habits of the boys—the latter, in turn, performing all those severer labors of the plantation as will yield sufficient food and provision for both establishments.

Be it further recommended, that in addition to the studies of the ordinary English Grammar School, the Master of the Male Department shall be required to instruct his pupils in a competent knowledge of simple land surveying.

It is recommended also that the dress of the boys be made uniform, and that the elder boys, ranging from the years of fifteen to eighteen, be provided with light muskets, and be subjected to the drill and instruction once a month, of the neighborhood Captain of Militia.

Resolved, That these recommendations be respectfully submitted to the General Assembly, with the prayer of this Convention, that they be subjected to examination and experiment, in three of the districts of the State, in order that their operation may be witnessed, previous to their general adoption as a system for all the districts. That in order that the experiment should be fairly made, the districts so chosen should lie, one in each of the grand divisions of the State, the upper, the middle, and the lower country : and that the present commissioners of

the districts chosen, be requested to take charge of the entire subject.

The preamble and resolutions having been submitted, Mr. J. A. Calhoun, of Abbeville, then moved that the Convention do now adjourn, to meet to morrow evening at half past 5 o'clock ; which motion prevailed, and the Convention adjourned.

FRIDAY, NOV. 29, 1839.

The Convention met pursuant to adjournment.

Gen. McDuffie, from the Committee of Nine, submitted the following Constitution for a State Agricultural Society, and also the subsequent Resolutions :

We, the undersigned, do hereby form ourselves into an Association, to be devoted to the improvement of the Agriculture and Agricultural economy of the State.

1 The Association shall be styled **THE STATE AGRICULTURAL SOCIETY OF SOUTH-CAROLINA.**

2. Its objects shall be strictly Agricultural and rural.

3. All persons subscribing and paying to the Treasurer the sum of five dollars, shall be eligible as members.

4. The Society will receive, as members, at its annual meeting, one delegate from a district or neighborhood Society.

5. There shall be a President, five Vice-Presidents, and a Corresponding Secretary, Recording Secretary, and Treasurer, and an Anniversary Orator ; who shall be annually elected by the Society.

6. The Society shall meet annually, in the Town of Columbia, during the first week of the Session of the Legislature ; at which time there shall be an exhibition and cattle show for premiums.

7. A quorum of the Society shall consist of not less than twenty members, including the President, or a Vice-President.

8. The President shall preside at all meetings, and in his absence, a Vice-President.

9. The President, with a majority of the Vice-Presidents, shall have power to call special meetings of the Society ; but such meetings shall be announced in one or more of the Agricultural papers of the State, at least thirty days before the time at which it is to be held.

10. The Committees shall be appointed by the President.

11. There shall be a Committee on Cotton, whose province it shall be to collect all facts relative to the growing crop; the amount produced; the kind most profitable; together with such observations thereto relating, as may be useful to the Society; and to award such premiums as may be provided for by the Society.

12. There shall be similar Committees on Rice, Corn, and small Grain, with similar powers and duties.

13. There shall be a Committee on Stock, whose duty it shall be to report the best mode of rearing the best variety, and to examine and award, at the show, the premiums for the same.

14. It shall be the duty of the President to publish, six months before the meeting, the kind and age of the stock to be shown; also of the products to be exhibited; and to specify in said notice the respective premiums.

15. The Society, in prescribing premiums for Stock, shall have reference to improvement in the Stock of the country.

16. The President shall sign such orders on the Treasurer as a majority of each Committee shall have drawn, in the performance of their duties.

17. The Treasurer shall collect all monies due to the Society, pay orders drawn in due form, and keep the accounts, regularly stated in the books of the Society.

18. It shall be the duty of the Corresponding Secretary to revise all communications before they shall be made public by authority of the Society.

19. It shall be the duty of the Recording Secretary to keep and preserve the books and papers of the Society, and to prepare its proceedings for publication.

The following resolutions, as reported by Gen. Mc Duffie, were then submitted:

1. *Resolved*, That the President be allowed time to nominate the Committees, and that he do appoint a Committee to select the best essay on the cultivation of Rice and Cotton respectively, each of such essays to embrace a complete manual of suitable size, exhibiting the whole economy of a plantation, comprehending management of negroes, rearing of stock, and improving of lands, and that he do provide a suitable premium for the same.

2. *Resolved*, That a Committee be appointed to memorialize the Legislature to grant an annual donation of the

sum of five hundred dollars, for the term of three years, to aid the Society in providing its premiums.

3. *Resolved*, That the Society do request the members from the several districts, to use their exertions to have local Societies formed in each district, to be affiliated with this Society ; and that it be recommended to such local Societies to offer premiums for the best managed plantation in their respective districts, as well as for superiority in particular departments and products.

The Committee also reported on the resolution offered by Mr. John M. Felder.

That while they consider the resolution as of vast importance to the true interest of the Agricultural community, they are yet of opinion that none of its importance will escape the reflection of the Legislature. They deem it advisable, therefore, to leave it to the ordinary legislation, in the confidence and hope that they will give it the consideration which its importance demands.

The Committee also recommends the following gentlemen as officers of the State Agricultural Society:

His Excellency Patrick Noble, *President*.

Whitemarsh B. Seabrook, *Vice-President*.

Whitfield Brooks, " "

W. K. Clowney, " "

James Gregg, " "

B. F. Dunkin, " "

B. R. Carroll, *Corresponding Secretary*.

R. W. Gibbes, *Recording Sec'y and Treas'r*.

On motion of Col. James H. Hammond, Gen. George McDuffie was unanimously appointed *Anniversary Orator* for 1840.

Gen. McDuffie moved the consideration of the Constitution, clause by clause, and the resolutions separately, which was agreed to, and after some discussion, all were adopted.

Col. Whitfield Brooks introduced the following resolution, with a request that it should be read, and laid on the table, which was granted-

Resolved, That in the opinion of this Convention, the multiplication of Banks in the State, invested with the legal right of substituting credit for capital, to three times the amount of the latter, and the imputed and ruinous

practice, by many, of exceeding their chartered limits, from five to seven fold, has had the effect of changing almost the entire currency of the country, from gold and silver to paper; of substituting for a metallic currency of permanent and intrinsic value, one of paper, of uncertain and fluctuating value; that one of the natural and inevitable effects of this system has been to drive the more valuable currency from circulation, to be transported to other countries, or to be hoarded in the vaults of their chartered institutions.

Resolved, That another consequence, no less injurious to the country, has been produced by the prodigal issue of paper currency, of creating two standards of value in the markets of Europe and this country; the one foreign, which is regulated by gold and silver metals, of intrinsic and uniform value among all nations, and the other domestic, which is regulated and controlled by paper; that two thirds the amount of its circulation depend upon credit for the standard of value, which is therefore always fluctuating with the expansions and contractions of bank issues; that in consequence of this state of things, the planter of cotton is forced to sell his produce at a price regulated by gold and silver, and to purchase every article of consumption by a paper standard in the domestic market.

Resolved, That the legalized privilege of the Banks, and their prodigal use of it, has mainly contributed to the wild and ruinous speculations which have characterized the present age, and to produce the late and existing derangement of the currency, with all the accompanying evils of bank suspensions, the fall in the price of the great staple of the Southern States, and the paralyzed condition of trade.

Resolved, That the only hope of relief from the evils complained of, is founded in the anticipation of a mild, gradual, and judicious reform in the currency of the State, by that department of the government, to which is intrusted the guardianship of the great interests of the community.

Resolved, That we entertain the highest confidence in the intelligence, wisdom, and patriotism of the Legislative department, for the adoption of such provisions, by law, as will effect a wise, safe and gradual reform, in

which no short-sighted policy shall be permitted that may do injustice to these institutions, or violence to the existing relations of Society.

Resolved, That our chief dependence, of right, should be, and in fact must be, upon the efforts of the Agricultural community, to work out their own deliverance and independence, by a united and harmonious concert of action among themselves; to introduce and encourage improved methods of fertilizing the soil, by popular and scientific modes of cultivation; by the practice of economy; and especially by the production at home, of all the articles of domestic consumption.

W. J. Allston, Esq. submitted the following preamble and resolution, which were adopted:

Whereas, good roads are indispensable to the Agricultural prosperity, as well as beneficial to the general interests of any country, and no labor more profitable in its results than that judiciously bestowed upon roads: and whereas, the notoriously bad condition of many of the most important roads in this State affords ample testimony of the utter inadequacy of the existing laws on this subject; and independent of their inefficiency, their operation is unequal and unjust, inasmuch as they impose upon the owner of male slaves, and those residing nearest the chief market roads, the burthen of keeping in repair the public highways, exonerating all other classes, the merchants, the stock jobbers, and the speculators of every caste, from their just share of this burthen.

Be it therefore *Resolved*, That in the opinion of this Convention, it is the duty of the Legislature, either to remedy the defect of the present system, or to substitute another and a better in its stead.

Major John Felder submitted the following resolution, which, on his suggestion, was laid on the table.

Resolved, That as the Agricultural interests generally, become the first victims of a fluctuating, disordered, and corrupt currency, the Legislature be respectfully requested to take such measures as will restore and secure to this State, a sound and stable currency.

Resolved, That as one step toward this desirable result, the Legislature be respectfully solicited to restrain all Banks from issuing any bank bills of less denomination than five dollars.

Resolved, That this Convention solemnly protest against borrowing any more money, or issuing any more bonds, or stocks, on the credit and faith of the State; and if any more money must be raised for the necessary purposes of an economical government, that the same be raised by a direct tax on the people.

B. R. Carroll, Esq. submitted the following resolution, which was adopted.

Resolved, That a Committee of three be appointed to memorialize the Legislature of this State on the different subjects recommended and acted upon by this Convention.

The President named the following gentlemen to compose said Committee:

B. R. Carroll, Esq.

Chancellor Dunkin.

Hon. James Gregg.

On motion of Dr. Davis, it was

Resolved, That copies of the proceedings of this Convention be furnished by the Secretary to the Carolinian and Telescope newspapers of this town, for publication, and that the principal papers of the State, friendly to the interests of Agriculture, be requested to copy them into their columns.

On motion of Dr. Reynolds, it was

Resolved, That the thanks of this Convention be presented to the Hon. F. H. Elmore, for the courtesy and impartiality with which he has presided over its deliberations; and also to Dr. R. W. Gibbes, for his diligence, industry, and general attention to the wants and wishes of the Convention.

Col. Elmore having left the Chair, it was

Resolved, That the thanks of this Convention be returned to the House of Representatives for the use of their Hall.

The President having made acknowledgements to the Convention, expressed the interest he felt in the objects thereof, and recommended an earnest, limited, and persevering attention to them.

The Convention then adjourned *sine die*.

ROBERT W. GIBBES, *Secretary*.

State Agricultural Society.

Friday Evening, Nov: 29, 1839.

On the adjournment of the Convention, the State Agricultural Society of South-Carolina convened, and Col. Whitfield Brooks, Vtce-President, took the Chair.

The Constitution, as recommended by the Agricultural Convention, was read and adopted.

The following gentlemen, nominated by the Convention, were elected officers of the Society :—

His Excellency Patrick Noble, *President*.

Whitemarsh B. Seabrook, *Vice-President*.

Whitfield Brooks, “ “

W. K. Clowney, “ “

James Gregg, “ “

B. F. Dunkin, “ “

B. R. Carroll, *Corresponding Secretary*.

R. W. Gibbes, *Recording Sec'y and Treas'r*.

Gen. G. McDuffie, *Anniversary Orator*.

On motion of Mr. Fair, the Society adjourned until to-morrow evening, for a more perfect organization.

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Saturday Evening, Nov. 30, 1839.

The Society met at 6 o'clock.

The President took his seat, and addressed the Society on the objects of the Association, in a short but impressive speech. The minutes of the last meeting were read, and the roll called, and it appeared that seventy gentlemen had become members. Resolutions were submitted by Mr. Ellerbe, in relation to the majority necessary to an alteration of the Constitution of the Society; recommending that the Anniversary be commemorated by a dinner, and that a suitable place be prepared for the exhibition of stock at the next annual meeting, and appointing Thursday after the fourth Monday in November, the Anniversary, and that the dinner shall take place on that day.

Mr. J. A. Calhoun submitted a preamble and resolutions, relating to the causes of emigration—recommending energetic measures for improving lands in the State, and the appointment of a Committee to report thereon at the next annual meeting.

Col. Thomas Pinckney offered a resolution, requesting all persons engaged in planting, farming, horticulture, or breeding stock, to publish, from time to time, in the Agricultural papers of the State, the result of their observation and experience.

On motion of Col. R. F. W. Allston,

Resolved, That when this Society adjourn, it will do so to meet on the fourth Monday in November next, at six o'clock.

The Society then adjourned.

Proceedings of the Monticello Planters' Society.

Monticello, October 2, 1839.

This being the third Anniversary of the Monticello Planters' Society, and its President being absent, the meeting was called to order by the Vice-President, whose indisposition rendering him unable to preside, at his instance, therefore, and on motion to that effect, James B. Davis took the Chair; whereupon, David Elkins was appointed to officiate in the absence of the Recording Secretary.

The proceedings of the last meeting having been read, several persons were proposed and admitted to membership in the Society. The Committees were now required to submit such reports as had not yet been offered; and the report of the Committee on Silk, as also the report of William J. Alston, showing the importance of gypsum as a manure to the pea-crop, were read, and on motion, laid on the table.

The Anniversary oration not being delivered, the motion was carried to elect officers for the ensuing year, which resulted in the election of

William Harper, *President*.

Burrell B. Cook, *Vice-President*.

Jacob Feaster, *Treasurer*.

B. F. Davis, *Recording Secretary*.

John A. Smith, *Corresponding Secretary*.

George Leitner, to deliver the next *Anniversary Oration*.

On motion of Burrel B. Cook, the President *pro tem.*, James B. Davis was added to the number of delegates to represent this Society at the Convention, to be held in Columbia on the first Wednesday after the fourth Monday in November next.

The respective judges now awarded the following premiums:

1. To Nathaniel Holly, "for the best common blooded mare, three years past;" dam, Janus; sire, Wellington. Five contending.

2. To Jonathan Robertson, "for the best common blooded suckling;" dam, Wellington; sire, Roanoke. Seven contending.

3. To James B. Davis, "for the best common blooded mare suckling;" dam, Janus; sire, Roanoke. Two contending.

4. To Jonathan Davis, Sen., "for the best mule suckling," a. b. c., by the mammoth Jack. Sixteen contending.

5. To James B. Davis, "for the best heifer, three years old,"—pedigree, Durham and Devon. Two contending.

6. To James B. Davis, "for the best heifer suckling"—pedigree, Durham.

7. To James B. Davis, "for the best ram, one year old."

The awards having been distributed, and there being no other business unfinished, the Society, on motion, adjourned.

DAVID ELKINS, *Sec'y pro tem.*

New Species of Plants for the Old Southern States.

To the Editor of the Southern Agriculturist.

Dear Sir,—I respectfully invite your attention towards my recent communication to Mr. Ruffin, which will probably appear in the Farmers' Register, under the head of "new species and new varieties of the actual staples of the old Southern States." You have perceived that all my writings are principally directed to the Agriculturists of the old Southern States, because I conceive that the agricultural improvement of that sec-

tion of the United States is more necessary to themselves and more important to the nation than any other equal surface of the Union. The South-western States possess more rich virgin soils than they can exhaust in many years, by the cultivation of the ancient great staple of cotton, which must always continue to be the most profitable article of culture in the most fertile soils. The Western States have still a boundless extent of the richest soils, better adapted to the profitable production of their ancient great staples for provisions, than for the culture of the silk mulberry, or of any other new staples of agriculture. The old Eastern States are warring against nature in their attempts to force the culture of the Manilla mulberry in their frozen climates, instead of continuing their more natural pursuits in the fisheries, commerce and manufactures. But the old Southern States, possessing genial climates with impoverished soils, are both invited and compelled to cultivate new staples; or, at least new varieties, peculiarly adapted to flourish in every peculiar variety of both their climates and their soils. Hence the cultivation of the silk mulberry *on their poorest soils* is highly desirable in many points of view, and merits the special encouragement of all the agricultural statesmen of the old Southern States. But admitting it to be established and extended to the greatest possible degree, the *silk mulberry cannot ever profitably occupy more than one per cent.* of the surface of their *poorest soils*. Taking the lowest estimate of the National Silk Convention, or 51 lbs. of raw silk per acre, we see that 100,000 acres would yield 5,100,000 lbs. of raw silk per year, which would much more than supply the whole consumption of the United States, and yet would not employ or occupy more than — per cent. of the surface of South-Carolina alone. Believing myself, however, that at 20 lbs. of raw silk per acre, the Manilla mulberry can be profitably grown on the *poorest* soils of the old Southern States, I would allow 250,000 acres to be dedicated to its cultivation—and yet reiterate my assertion that this surface would not embrace the *hundredth* part of the *present unproductive* soils of the *old* Southern States. But as it is desirable to encourage the production of one staple of China, which will profitably employ only one per cent. of their hitherto unproductive soils, is it not still more

desirable to encourage the production of another staple of China, which will as profitably employ at least five per cent. more of their poorest soils. I allude of course to the raising of tea, and respectfully invite your re-publication of the article on that subject, by Dr. Dekay, at pages 105-6-7 of the New-York Farmer, for 1828.—By his personal observations in Brazil, we arrive at the important general results, that the only tedious operations from the planting of the slips to the selling of the tea are the picking and assorting the successive crops of the *green* leaves, which are the light labor of the feeble, in sex, age, or health; that the plants of two feet high, four feet apart, will yield an annual average of 3 lbs. of leaves, or 8000 lbs. per acre: and that one man may cure, and prepare for market, the entire produce of sixteen acres! and that hence the production of *tea*, at only 10 cents per pound, will afford more profit than any actual staple of the old Southern States, which can be raised on equally sterile soils. * * * * *

But you know that *my* greatest hopes for the greatest prosperity of the *old* Southern States, are founded on their future production of *superior substitutes for flax and hemp* on the *greatest portions* of their poorest soils. “My unshaken opinions of the immense importance of the *indigenous* plants, whose *living leaves* yield *textile fibres*.” My strengthened convictions of the incalculable benefits of propagating *fibrous leaved plants* on the poorest soils of all the *old* Southern States, which were expressed in a condensed form to the Committee on Agriculture of the House of Representatives of the United States’ Congress, on the 3d February, 1838, have been re-published in your June and July numbers of the same year, at pages 305-316, and pages 361-369, inclusive.

Now, that a general interest for the promotion of Agriculture, has been first awakened in the *old* Southern States, I respectfully invite their most serious deliberations in the contents of those pages in reference to the production of *foliaceous fibres* on their poorest soils. If, instead of the isolated exertions of a distant individual, only one thousandth portion of the persons and purses devoted to the propagation of the Manilla mulberry had been diverted to the propagation of the *Sisal* hemp, it would no longer need the humble aid of my feeble pen.

If the cause had received the simple aid of a *general exhibition of foliaceous fibres alone*, I am persuaded that the *bare inspection of the samples* of superior substitutes for flax and hemp, would have excited many Southern planters at least to make a trial of the *fibrous leaved plants*, whose *living green leaves* yield these *superior textile fibres* at all seasons of the year! At all events, the *trial* of the fibrous leaved plants *may be excited* by a *general premium*, which should *combine* the stimuli of *honor* and *profit*, to encourage the production of *all desirable staples* in the *poorest soils* of the old Southern States. Say for example—the Legislature of each State to offer, 1st. A premium of ten thousand dollars to the only citizen of that State, who, by the cultivation of a new staple of agriculture on the poorest soils, shall *first* demonstrate that it is more profitable than the cultivation of cotton on the medium soils. 2. A premium of one thousand dollars to the first citizen in each county (of the State) who shall make the same satisfactory demonstration on one acre of *its poorest soils*. The Agricultural Society of the State to determine the person best entitled to the bounty for the State; and the Agricultural Society of the county to decide which person is best entitled to the bounty for the county!

With my views, however, of the immensely greater importance of the *exotic fibrous leaved plants* for the *poorest soils* of all the *old Southern States*, and with the facts that they already abound in *indigenous* species of Yucca and Agave, whose *living leaves* may also yield superior substitutes for flax and hemp, I could most earnestly unite in beseeching the Southern Legislatures to offer *special premiums* for the *special production* of these *superior textile fibres* from the *living leaves* of both the *indigenous* and of the *exotic species*, on their *poorest soils*! Say, ten thousand dollars premium to the first person, who, with the least labor and expense shall produce the greatest quantity of any *superior substitute* for *either flax or hemp*, from any *indigenous species of fibrous leaved plants* on one acre of the poorest soils, and who shall thus satisfactorily demonstrate to the Agricultural Society of the State that the general cultivation of this new staple on the *poorest soils* will be more desirable than the exclusive cultivation of the old staples in the *richest soils*. For an acre of the *exotic species*, with the same conditions, the *honor* of a

gold medal, or of a laudatory diploma, might be super-added to the *reward* of ten thousand dollars. Although the premium might not be ever gained, yet *the proffers alone would excite many trials on the poorest soils*, which would promote the agricultural prosperity of the old Southern States. The indigenous species of *Yucca filamentosa* and of *Yucca gloriosa*, would be fairly tried as superior substitutes for common flax. The indigenous species of *Agave verginica* would be fairly tried as a superior substitute for common hemp. The exotic species of *Phormium Tenax* and of *Bromelia Pita* would also be fairly introduced as still more productive substitutes for common flax and the exotic species of *Agave Sisalana*, and of *Musa Abaca* would be furthermore introduced as still more productive substitutes for common hemp. And if only one species of fibrous leaved plants, either *indigenous* or *exotic*—*if only one species*, should thus become spread over *only one third* of the poorest soils of the old Southern States, I repeat my inspired prophecy, that this new staple will become much more important to them than all their old staples combined, not merely for the amount, value, and profit of the product itself, but also on account of the character of the land, of the labor, and of the population it will most naturally employ.

Very respectfully, your obd't serv't,

HENRY PERRINE.

Indian Key, Tropical Florida. 22d Oct. 1839.

PART II.

SELECTIONS.

Cultivation of Cotton.

[FROM THE FARMERS' GAZETTE.]

Report on the Cultivation of Cotton, read before the Pee Dee Agricultural Society at its Semiannual meeting in October 1839, by the Hon. John Campbell.

The first object of consideration in the cultivation of cotton is the selection of a soil suited to its production. But as every variety of soil within the limits of the Pee Dee country of sufficient fertility, is found under a judicious system of cultivation, to yield a good return for the labor bestowed upon it, and as a committee has been appointed by this society to report particularly on manures, it is thought unnecessary to make any comment upon this branch of the subject; except to remark, that from an exhausted soil, or one naturally poor, and unimproved by art, it is in vain for the planter even with the most favorable seasons, to expect an abundant harvest.

The field being selected and the proper season having arrived, the first operation is to prepare it for planting.

In properly preparing land for planting short staple cotton good ploughing is indispensable, and among the rules which may be laid down as admitting of no modification, are these: Every part of the soil should be turned and effectually pulverized; and the depth of furrow on all lands should be regulated by the stratum which divides the fertile from the unfertile molds. Therefore, in the breaking up or preparation of land, the ploughing may go as deep as the soil will admit, but not deeper and from the violation of this rule which nature has provided as a criterion, thin soils are sometimes much injured.

Light and dry molds that are easily pulverized may be ploughed immediately before planting. But on clayey soils, where the extremes of wet and dry present the disagreeable alternatives of mire or clods, the best season of ploughing is often short and critical, and such soils should when practicable be ploughed early in the winter, that they may by the action of the frost be rendered friable and more easy of cultivation.

The usual and best method of planting cotton is on ridges, the centres of which vary in distance from three and a half to seven feet, in proportion as the soil is more or less fertile. The ridges being widest

upon the more fertile soils, when from the larger size to which this plant attains, it requires the greater distance to admit the influence of the sun and the circulation of the air.—Upon all soils the observance of this rule is important, but particularly upon such as are backward in bringing cotton to maturity. The ridges are formed according to circumstances, either by the plough alone, drawn by one or more horses, or by the plough and hoe.

The land being thus prepared, the object is to plant.

Cotton being produced in all the Southern and South-western States, over a territory embracing a considerable variety of climate, is planted at different times from the first of March to the first of May. As a universal rule however, it may be remarked that the planter should select the earliest period that is consistent with safety. Confident that let human systems vary as they may, the approach of that season which wakes up the vegetable creation from the sleep of winter, and by its genial influence gives it life and beauty, is regulated by a steady hand—and grateful when he commits his seed to the earth, that if he has discharged his duty in preparing his land for their reception, his labor will not be in vain. In the region embraced by the Pee Dee Agricultural Society, the best time for planting is during the month of April, commencing about the second week and completing the operation as soon afterwards as practicable. It rarely, indeed it almost never occurs, when lands have been well prepared, that there is a failure in the stand.

The seed are planted either in drills, in checks or in chops. But the most usual and convenient method when seed are abundant, is to sow in drills run on the tops of the ridges and to cover lightly with a plough constructed for the purpose. If the weather is moist and warm the plant will appear in a few days, if the contrary the seed will remain for weeks without vegetating. The stand of cotton is sometimes injured by heavy floods of rain falling shortly after planting, succeeded by drought, forming a crust on the drill which the vegetating seed are unable to penetrate. Light soils are not subject to this evil, and on stiff lands it may in a great measure be avoided by sowing the seed and leaving them exposed until after a rain when they should be rapidly covered while the earth is friable. The moisture adsorbed at such a time will occasion the seed to vegetate before another rain has fallen and another crust has formed.

After the plants are up, commences a most important part of the cultivation; and here the Committee will remark, that practical results in the culture of Cotton are varied so much by circumstances, that it is impossible to lay down rules which will be of universal application. But depending almost entirely upon experience and observation, and very little upon theoretic reasoning, every judicious planter will be regulated in the management of his crop by the condition of his field. The first process however, after the cotton is up, is generally, in common language, “to chop out.”

This operation is performed by drawing the hoe rapidly across the drill at short intervals, leaving between each chop three or four plants. The plough immediately follows running as near the drill as practicable without covering or otherwise injuring the plants. The hoe succeeds, removing the grass which by this time begins to appear, reducing the plants if of sufficient size and vigor, to a single stalk at a place, and drawing around them a little mellow earth. The plants

will now stand in the drill from ten to twelve inches apart, and if this hoeing is well done, the principal difficulty in the cultivation of the crop will already have been surmounted. If on the contrary, it is negligently performed (as is too frequently the case) the planter, if fully cropped, may expect much vexation in its subsequent cultivation.

The first ploughing is generally performed with two furrows to the row, leaving a narrow ridge of not more than six or eight inches to be worked by the hoe. In the second ploughing the intervals between the ridges should be effectually ploughed out, and the fresh earth thrown lightly around the lower part of the cotton stalks. Every subsequent ploughing should be performed in the same manner, with an increasing particularity as the plants increase in size and approach maturity, not to run deep and near, lest by so doing, the lateral roots which are thrown out in search of food, should be injured, and the circulation of the sap too much checked. Ploughs of various models are used in effecting the same results, but it is deemed unnecessary to enter into a description of them or a description of their relative adaptation to the objects intended. Every planter in the selection of ploughs will of course be governed by his own observation.

The cotton crop should be worked at intervals of not more than three weeks from the commencement to the termination of its cultivation, and success depends not less upon the judicious and skilful management of the hoe than of the plough. There is however much greater uniformity in the method of using this implement, and it may be remarked, in general, that where the soil is mellow and in good condition, it is sufficient to remove the grass where the plough cannot reach it, and to draw a little fresh earth to the plants with the hoe where the beds are hard; its province in addition, is to loosen the surface.

With a view to the increase of productiveness, many planters are in the habit of topping their cotton, and there is no doubt that where this operation is performed in time, it produces good results. The plant when upward growth is checked by this process, yields more of its circulation to the support of its lateral branches and to the nourishment of its fruit.

The Committee deem it almost unnecessary to allude to the great importance of having the cotton gathered as soon after it has opened as is consistent with a proper regard to the attention due to other interests on a plantation. Every planter of observation must be convinced of the great loss in weight, and the deterioration in quality, sustained by cotton, from long exposure in the fields to the storms and frosts of winter.

The cotton plant is well known to be subject to a great variety of diseases, some of them appearing in the plant, and others in the fruit only. Some have supposed that all of these diseases proceed from insects. Many of them no doubt do; but experiments have proved the existence of a circulatory system in the vegetable as well as in the animal creation; and it is known that, like animals, vegetables extract a fluid from whatever substances are applied to the organs through which they receive and digest their nutriment, that may either tend to promote their health or to produce disease. Hence it is obvious that the health of vegetables like that of animals, may become injured by drawing within their circulation deleterious or poison-

ous qualities, and that the rot and other diseases in cotton may be attributed to this cause. This alone, combined with the circumstance that we have not yet been able satisfactorily to trace the causes or provide against many of the diseases to which cotton is liable, shews the importance of an improved state of agricultural knowledge—knowledge, the advancement of which has no doubt been much retarded by the secluded state in which the cultivators of the soil have generally lived, and the want of that patient and continued observation necessary to understand the processes of vegetation, and to remark intelligently upon the different results of the application of different soils and manures, and the effects of other external agents to which the plant may be subjected. A state of things which it is hoped that this Society, now in its infancy, will have some agency in removing within the limits of its influence.

The cotton plant under the name of *Gossypium* has been historically known since the time of Herodotus, the father of profane history, but so recent has been its cultivation in this country that many now living can recollect its introduction among us as an article of commerce. It would be foreign to the objects of this report to refer to the important influence which in its processes of cultivation, manufacture and sale, this article is now exercising on the destinies of the human race: But in illustration of the extent of its cultivation and of its value, the Committee will briefly refer to the last report of the Secretary of the Treasury, containing a statement of the annual commerce and navigation of the United States, commencing on the 1st of October, 1837, and ending on the 30th September, 1838. According to this report, the entire exports of the domestic produce of the United States amounted for that year to \$96,033,821. Of this amount, the export of raw cotton alone amounted to \$61,556,811, and manufactures to \$3,758,755, making in all \$65,315,556, and leaving less than \$31,000,000 for the exports of the domestic produce of the whole Union besides, including the contributions of the earth, the forest and the sea, of agriculture and manufactures. Thus we see that the single article of cotton alone, raised exclusively in a section of country containing less than a third of the population, constitutes in value more than two-thirds of the exports of the domestic produce of the United States.

To the support of the pre-eminence, which, under a fortunate combination of circumstances, we have obtained as the cultivators of cotton we are mainly to look not only for individual prosperity but for the permanence of our commercial and political importance, and this pre-eminence is to be preserved not so much from our local advantages, as from a perseverance in that enterprise, industry and skill which have placed the competition of other regions, not less favored by climate, at a distance, and given to us the command of the markets of the world.

Correctives of ill Constituted Soils, by a Practical Agriculturist.

[FROM THE YANKEE FARMER.]

The following are simple and efficacious correctives of some bad ingredients in soils, or the excess of some good constituent, the presence of which frequently disappoints even the skilful cultivator, when either the true cause is not suspected, or an appropriate remedy is not known.

1. A farmer with a great portion of common skill is often baffled by iron in its acid combinations. If on washing the specimen of a sterile soil, it is found to contain the salts of iron, sulphate of iron, or any acid matter, it may be ameliorated by a top dressing of quick lime, which converts the sulphate of iron, (copperas) into a manure.

2. If there be an excess of pure calcarious matter (chalk or lime) in a soil, its constitution may be improved by turning, in a green state, some of those vegetables which possess the greatest quantity of acid: also by the application of sand or of clay, with a small proportion of oxide of iron (blacksmith's sweepings) not exceeding one-twentieth part. The same object may be attained by irrigating with any calybeate water (water containing iron,) or the addition of peats containing vitrolic [*i. e.* sulphuric] salts; both which are calculated to turn lime or chalk into gypsum.

3. When an excess of carbonate of lime (charcoal united to lime) requires the soil to be modified, gypsum applied as a manure, also oxide of iron applied as a corrective, seems to produce the very best effects. Carbonate of lime is mild, lime in combination with charcoal absorbed from decayed vegetable or animal matter.

4. Soils redundant in sand are benefited by a top dressing of peat or other vegetable matter, or of decayed animal matter, or by a mixture of clay. Also, if the sand be not calcarious, by marl.

5. An excess of vegetable matter is to be removed either by burning, (see III. paring and burning,) or by the application of earthy materials. The fundamental step in the improvement of peat land, or a bog or marsh, is draining. Soft black peats, after being drained, are often more productive by the application of sand or clay, as a top dressing; and is greatly to be preferred. When peats are acid, or contain ferruginous salts, calcarious matter is absolutely necessary in bringing them into cultivation. When they abound in the roots and branches of trees the wood must either be grubbed up and carried off, or destroyed by burning; so when the face of peat is encumbered by living plants containing much woody fibre, and therefore not proper to be ploughed in the ground, the field must be cleared by one of the same methods.

6. Where there is a redundancy of clay in a soil, (and if the quantity of clay exceed one-sixth of the general mass, it is desirable to reduce the proportion,) one of the best dressings which can be applied is a mixture of sand and mild lime; the rubbish of mortar containing both these materials, is an excellent thing to improve the texture of a clayey soil. Clay appears to receive no improvement from lime alone. Sea-sand may be used alone with good effect. It would be

also highly beneficial to introduce as much fermented dung or decayed vegetable matter as would entitle the land to the denomination of a loam.

II.—By Draining.—No perennial crops, and but few annual plants, can be successfully cultivated where the land is exposed to winter floods, or where the subsoil is rendered wet by under springs; or by heavy leakage from neighboring pieces of water lying higher and imperfectly banked off. Where open drains would be unsightly or inconvenient, as in the interior of a domestic garden, or ornamental ground, a paved brick drain is in the end cheaper than a rubble drain, because the latter is liable to be soon choaked by the roots of trees.

III.—By Paring and Burning.—It is obvious that in all cases the process of burning must destroy a certain quantity of vegetable matter; and it must principally be useful where an excess of this matter renders the soil too rank. It must be of eminent service in reducing to charcoal, or wood ashes, a great accumulation of woody fibre already overrunning the field; for woody fibre is very slowly reduced to the state of vegetable mold, if left to the process of a natural dissolution; nor is it very rapidly reduced by lime or other solvents artificially applied.

Burning likewise renders clay less coherent; and in this way greatly improves their texture, and causes them to be more permeable to water, and consequently less retentive of it in stagnant masses. Another cause of the unproductiveness of cold clayey soils, is, that the seed is coated with matter impenetrable to air. When clayey or tenacious soils are burnt, their power of tendency to absorb water from the atmosphere is diminished in the proportion of 7 to 2; and they are brought nearer to a state analagous to that of sands; the particles are less adhesive, and the mass less retentive of moisture. Thus the process of burning, properly applied may convert a matter that was stiff, damp, and in consequence cold, into one powdery, dry and warm; altogether more fitly constituted as a bed for vegetable life. The great objection made by speculative chemists to paring and burning is, that the vegetable and animal matter in the soil is diminished. But where the texture of earthy ingredients is permanently improved, there is more than a compensation. To meet the objection still more directly, where an excess of inert vegetable matter is present, the destruction of a part of it must be beneficial; and the carbonaceous matter in the ashes may be more useful to the crop, than the unreduced vegetable fibre, of which it is the remains, could have been.

The most speedy way of bringing under tillage a meadow overrun with rushes is; first to drain it, and then to pare off a thick turf, and burn it.

The cases in which burning must incontestibly be prejudicial, are those of sandy dry flinty soils containing little animal or vegetable matter; here it can only be destructive; for it decomposes that constitution which is already below the minimum proportion, and on the presence of which, in a limited degree, the productiveness of a soil depends.

“Burning without fire.”—A new method has lately been discovered of substituting quick lime for fire; and experiments made upon it before the Worthington Agricultural Society gave general satisfac-

tion. The lime in its most caustic state, fresh from the kiln, is laid upon the vegetable surface to be consumed; and before it is weakened by exposure to the air, water, just in sufficient quantity to put it powerfully into action, is applied. This fierce compound will not only consume the vegetable covering, but affects the clay, or other upper stratum, as if it had been in contact with fire. It supersedes the trouble which has hitherto attended burning; and in respect to poor soils which would be improved by the two distinct operations of burning and liming in the common mode, it bids fair to bring them sooner on a par with those of superior quality.

IV.—By turning in Green Crops as manure.—This is directly opposed to burning turf, in regard to intention and effect; and is particularly serviceable where the bases of vegetable mold is to be augmented, being an extension of the principle on which paring turf without burning is resorted to. When green crops are turned into the clod, besides enriching the staple with nutritive matter, they promote the fermentation and decomposition of woody fibre buried near the surface; and which is a useless incumbrance in an undecaying state.

“When green crops are to be employed for enriching a soil, they should be ploughed in, if possible, when in flower, or at the time when the flower is opening; for in this stage they contain the largest quantity of soluble matter. Green crops, pond weeds, the paring of hedges or ditches, or any kind of fresh vegetable matter, not woody, require no preparation to be fitted for manure. When old pastures are broken up for tillage, not only is the soil enriched by the death and slow decay of the plants which have previously deposited soluble matters in the clod; but the leaves and roots of the grasses (vegetating just before the change of culture) afford saccharine, mucilaginous and extractive matters, which become immediately the food of the crop; also the gradual decomposition of the grasses afford a supply of vegetable mold for several years.”

After giving the substance of Sir H. Davy's theory on any specific subject in agriculture, it will not be often necessary to incur the hazard of questioning some incidental deduction from the system; because the principal branches of his theory are so consonant with experience that they incontestibly contribute sound and intelligible principles for applying more extensively, and with more certain effect, entire classes of means at the command of the cultivator, where the resources to which the practical farmer had arrived, by the empirical course of laying different ingredients on land without knowing their precise operation, were previously few and limited, or their utility doubtful.

Wine from the Myrtle.

[FROM THE AMERICAN FARMER.]

Considerations upon the important industry which has just been established in the Ardennes, by the labors of Gen. Comte de Chassenon.

It has happened in all ages, and in all countries, that immense sources of riches have been inherent or adherent to a soil, before their existence has been suspected, or any advantage drawn from them,

until at length some skilful and industrious man, by a bold stroke, has discovered and given a value to them.

This is very often applicable to mines, in the existence of which the most able miners are often deceived, and in their discovery, difficulties which may be almost called impossibilities are met with, large capitals are expended in seeking for them, and considerable sums must be advanced to work them, long before any returns can be expected.

Now, to turn to the subject—the *art* of extracting wine from the myrtle, which grows spontaneously in our forests, and according to the learned Mr. Noisette, in all northern countries, and particularly in North America, as if to indemnify these regions for the absence of the vine, are of three kinds, viz. Wines which resemble those of Bordeaux, Brandy of 36°, and Vinegar on an equality with that of Orleans; for such an operation, we say, a very small capital is necessary, and great advantages may be derived from it in ten months.

The advantage which results from this discovery, notwithstanding the great and prompt benefits which it confers with certainty, is not the most material point of the question. The future and moral bearing which the industry that it must necessarily create, because it interests a great number and forever, is what particularly calls us to the investigation of this subject. See the notices in the journals and scientific papers upon the great benefit which must result from it to Russia, Poland, the Northern United States, Canada, Sweden, Denmark and Norway, and which consider the discovery of the Comte de Chassenon as a benefit to mankind.

Contrary to those material speculations, which because they are such, only benefit a restricted number, this speculation may be called moral and social, because its spring is the necessities of poor countries, its object, to satisfy these wants, and its means, the rendering useful in various ways, a spontaneous production which has been hitherto completely neglected.

This industry, like all the greatest discoveries, whose object has been the happiness of mankind, is accompanied with a simplicity that excites our astonishment, that so much delay should attend their introduction. We must not imagine it is only necessary to display it to the world, to insure its immediate reception—our habits are so deeply rooted, they may well be called second nature.

Far from any favor being extended for the admission of any thing new, however great the advantages may be which it presents, and even when it does not threaten any established interest, it is sure to meet with at least incredulity, often derision, and evil disposed persons are even inclined to throw obstacles in the way. A declaration of Demosthenes is applicable to them: “It is not so difficult to make a good law, as it is to make it appreciated.” And in this instance, it is not so much the discovery of a precious principle which offers the difficulty, as it is its application, and making its results appreciated, &c. &c.

Those introductions which have tended most to promote industry, will support our assertion; and it is only after experiencing many defeats, that the most important, even those which have had most influence upon the march of the world, and after long delays, have been able to gain the victory—a victory which has very seldom benefited the producer, or rather introducer of the discovery.

It must be said that the peculiar genius of those introducers is such as to strengthen them in proportion to the obstacles they have to encounter. Under the certainty which arises from this source, they have a desire to be constantly in action, and that gives to them the wish to continue in their labors, which is called perseverance, which is equal to them to the title of conqueror, for however far they may be from succeeding, they have certainly merited some portion of this epithet.

What we express here in general terms, does not misapply to the particular case, which gives us occasion to make these remarks. But if on the one hand indifference and incredulity, added to some opposition, have been obstacles to the great benefits to be derived from the cultivation of this article, on the other hand is seen in the introducer of this benefit, a person whose character has been too much accustomed to this warfare, to be frightened by these difficulties, consequently he is incapable of being overcome by the strongest obstacles. In fact, is there any opposition which can equal the energy given by the sight alone of a great public benefit, and of the means of assuring it, both of which would double the energy produced by the resistance it met with.

Sui que suum, give to every one his dues, let us be more just towards the men of this stamp than our ancestors have been, and if we cannot lend them aid and assistance, let us at least not be so insane as to show ourselves opposed to them, and consequently opposed to their labors, and let us not leave to our successors the task of paying the debts which we now contract, debts which sadly delay improvements upon this globe, whose history is constituted by the men who mark its different eras. A circumstance in the development of these innovations, is that those which have been presented without precedent or without analogy, have met with the least resistance. Sometimes even a slight accident has served as a passport to their introduction, and then they have been received with the greatest applause. This is what has happened to tea, coffee and pepper. On the contrary, through what vicissitudes has the potato passed. It has been forbidden twice, and has owed its re-production to the courageous perseverance of a wise man (the respectable Parmentier,) who consecrated nineteen years of his life to its cultivation. And this plant which can now ward off any famine, was opposed because tuberous roots had no precedent.

What has not already the beet experienced, and through what will it not still have to pass! For it has in the sugar cane an antagonist, which will not easily consent to resign a position which it has occupied for a long time merely because there was no other candidate, and which it must necessarily lose in spite of the insane assistance which the government of France, contrary to its own interests, persists in lending it. The myrtle is found in a position nearly similar; but it has not to resist openly at least, its antagonist wine. Beside, this slight sketch has not escaped the notice of the introducer, who wishes to extract wine from this production; it has only served to redouble his zeal and efforts, in order to derive all the benefits possible from that newly discovered plant. It is not that which constitutes the object of the solicitude of General Chassenon, for having gone back to the original elements of industry, he quietly awaits the natural consequences. For example, he says, that "as all that which is

truth, and which has been once shown to be such, can no longer disappear, that at the worst, it can only be delayed, since it has become nothing but a question of time, and that this delay may be exceedingly increased, by incessantly referring to the subject, (but referring to it by acts, and not by words,) that it is necessary to proceed with caution, because though the ears of all are becoming deaf, still the eyes though growing short-sighted, can still read facts when written in bold letters."

Then if we speak frankly, there is only one real solicitude for him who has introduced into Ardennes the art of extracting wine from what he considers as the most important, and the most precious production of the soil, and it is in order to insure the results of this benefit, in the only way in which it can be rendered such, that he has such a heartfelt desire, to see participated in, by those who ought to be the most interested in it, (the owners of the soil) by confiding to their charge this important branch of industry, which has a prospect so brilliant and so near, which offers so many great and lasting advantages, which requires so little expenditure, that we may say, the results as much exceed the capital, as the fruits of the harvest do the corn which is planted. A double advantage results from the introduction of this new branch of industry: 1st, the refined brandies which can be furnished from the extract of the myrtle, restore to our consumption a third of our harvest in corn and potatoes, which as it exists now is insufficient for the demand—2d, taking the place of the pernicious brandies, which are obtained from grains and potatoes, even as far as Kirshwaser; the brandy from the myrtle is to be preferred to the other, for that is already becoming dangerous to the health, because in its composition there is more than one-fifth part which is poisonous, as in the kernel of the grain there is a quantity of prussic acid.

Successful Modes of Rearing the Morus Multicaulis. Causes of the Great Failures in 1839.

[From the American Silk Grower.]

The time which I consider as most suitable for planting the *morus multicaulis* is the time which is usually deemed best for sowing the seeds of the mulberry, and also of most small seeds of garden vegetables, and of Indian corn; that time is in Massachusetts and near Boston, about the 1st of May, or a little later, according to the season, and after the earth has become in a measure warmed by the sun, and the danger of sudden changes from heat to cold is past. If planted earlier they are liable to vegetate prematurely, and to be suddenly arrested in the bud, and to perish during long cold storms.

The chief cause of the very extraordinary failure in cuttings during the present year in the States of the East and throughout Long Island, in Pennsylvania, and Virginia, and many other places, was caused by *too early planting*, followed as it was by long cold storms of extraordinary duration. And this is not the only year in which great failures have originated from this same cause. It was the same

last year at Long Island, as it had been also in some former years, both at Long Island and in other places where great failures had arisen from *too early planting*.

Many failures, without doubt, occurred in other places, and from far different causes. This was particularly the case with many who bought French imported trees, as a considerable portion of these trees had lost their vitality on the passage. In many cases the trees which were sold had been ruined by oft changing hands, and removals hither and thither, and long continued exposure during winter or spring. In other cases, from imperfect and bad packing and drying, or the alternate freezing and thawing of their roots, and by careless management. I am aware that several estimable men, writers and cultivators of considerable experience in North-Carolina and Virginia, judging from their own successful cultivation in former years, have highly and most impressively recommended *early planting* as indispensable to the most perfect success, and for the climate of Virginia even February was deemed by them as preferable to March. Their writings on this subject being circulated from publication to publication, throughout the country, seem to have had a powerful effect, and to have induced generally to *very early planting*. The usual time for planting Indian corn at Portsmouth, near Norfolk, in Virginia, as I was there informed, is generally about the 10th of April. At that place, and in the spring of the present year, I planted largely of the *Morus Multicaulis*. A part I planted with cuttings, all which I cut with but a single eye, and a part with roots. All cuttings which I planted very early succeeded badly; but all those cuttings which I planted very late, succeeded admirably, as did all the roots, whether planted early or late.

That part of the land where I commenced planting was in a highly cultivated and good soil, rather stiff and tenacious.

I began planting my cuttings the 15th of March. These were planted in drills, on a ridge a little elevated above the surface; they were covered about an inch and a half above the eye, and as soon as the ground was sufficiently dry it was rolled with a wooden hand roller; this left the compact earth about an inch above the eye. My reasonings for covering at this depth and for rolling were to guard against the drouth, should drouth come, for such extraordinary cold and long continued storms as afterwards came on had been seldom before known, and were not anticipated by me in that climate. My early planting was finished about the 12th of April. From the 15th of March to the last date, there were occasional long and cold storms. Of this, my first planting, a very great proportion of the cuttings finally perished in the earth, and were lost.

About the 10th of April, I returned North, and sent on from thence a large quantity of cuttings, sufficient to finish the whole field; these were set out between the 20th of April and the 1st of May, in a soil rather less consistent and rather more sandy than the first part of the field, which was planted. They were covered with earth about an inch above the eye, the earth compressed lightly but not rolled hard; showers followed, and this late planting, for that climate, succeeded admirably; not one, perhaps, in twenty cuttings failed.

At a still later period, I sent on a few thousand trees from the North, to re-plant a part of my ground which had failed of my first

planting. A part of these trees were cut up into cuttings, and part were laid horizontally, the bodies being covered an inch deep; all these were planted in June. This last mode is an admirable and safe one. All of this very late planting succeeded well. Cuttings which were planted very early in this part of Virginia seemed to have feared worst of all in soils rather clayey and retentive of moisture. At Portsmouth, Dr. Butt planted a considerable field of cuttings in the latter part of March, in a very rich coal-black soil, composed almost exclusively of a large proportion of vegetable mould, mixed with a small proportion of sand; these succeeded well. On another mulberry plantation, of the Rev. Mr. Jones, at the same place, the cuttings were planted at the same season, in a soil composed almost exclusively of a large proportion of sand and a small proportion of vegetable mould. In this poorer soil the cuttings appear to have suffered least of all from the cold storms, as they succeeded admirably.

The most suitable soil for the cuttings is a soil composed of a mixture of a part sand and part vegetable mould. The cuttings should be cut a quarter of an inch above the eye, and after inserting it vertically in the earth, it should be trodden hard, and covered with about an inch of loose mould. If the season is wet and there is a prospect of more rain, let the cutting be planted in a ridge a little elevated above the surface; if on the contrary the earth should be dry at the time of planting with no immediate prospect of rain, let the cutting be planted on a level with the surface, and covered rather deep.

The cuttings should be immersed in water at the moment of planting out, but by no means should they be steeped in water during twenty-four hours, as some have directed; such a practice is utterly destructive to the vitality of the cutting.

But the most sure and certain mode of propagating the *Morus Multicaulis* is to bury the body of the tree horizontally, fixing the roots at a proper depth. In Northern States the bodies should be covered but half an inch or an inch, but in the Southern States an inch and a half, or rather deeper, in a dry sandy soil. Thus planted, and at the suitable time, I have never, in any season, known this system fail, as the root will thus preserve the vitality of the top, and insure its growth. The buds on the underside of the tree thus horizontally laid, will lie dormant, but they only sleep, and under more favorable circumstances, will start from the root one or two years after. About half the buds or eyes of the trees, thus laid, will grow and form fine trees, with fine roots, by autumn. Of all the modes of raising the *Morus Multicaulis*, I consider this as one of the most sure. I have never in a single instance known it to fail of producing an abundant return.

Very respectfully,

WILLIAM KENRICK,

Newton. Mass. Aug. 26, 1839.

Tree Planting.

[FROM THE GENESEE FARMER.]

A correspondent in Hannibal asks for some information on the subject of planting forest trees ; the most valuable kinds ; the best methods of growing them, &c. &c. Mr. R. will find in the former volumes of the Farmer several papers on the rearing of forest trees ; but as the subject is one of great interest, and very many of our present subscribers have not seen the former volumes, we shall give some general principles in as condensed a form as possible, confident that a large proportion of our readers will find it for their interest to cultivate and plant trees to a greater or less extent.

The objects in planting trees are various, and the end to be gained should be kept steadily in view in all the operations. Trees are wanted for timber, fruit, fence, fuel, and for ornament ; and the planting must be conducted with reference to these things. For timber, the oak and the elm are the most valuable ; for fences, if rails are wanted, the chesnut will give the quickest and most durable growth ; if wood for posts is desired, the locust or mulberry are probably as good as can be found ; the several kinds of maple or walnut make good fuel ; and for ornament there are none superior to the locust or maple, both of which are valuable in other respects. Evergreens have not as yet been grown in this country to any extent but it is probable the planting of pines, larches, spruce, and fir trees, in locations suitable for their growth, would be advisable.

Observation shows that different trees demand soils of different and peculiar qualities, some flourishing best on dry and some on wet land ; some on clayey and some on gravelly soils ; and others on soils in which the component parts are so mixed as to give a good farming soil or loam. The oak and the chesnut will grow well on the same soil, though examination shows that the soil in which the latter comes to the greatest perfection is more sandy, or contains more silicious matter, than that in which the oak reaches a similar state. So the pine will grow with the chesnut or oak ; but to attain its greatest size, requires a soil a little different from either. It is remarkable, that some trees that flourish in the very lightest soils, will also grow in the densest swamps. Thus, the pine is not unfrequently found by the side of the cypress, while it cannot be made to grow on lands that are hard and clayey, though dry and elevated. Soils the most suitable for the oak and chesnut, are not the best for the maple or elm, the last of which, with the ash, flourish well together, the black ash excepted, which will grow nowhere except in swamps, or rather swales. It is only by ascertaining the nature of the soil we wish to plant, that we can determine the kind of tree most suitable for propagation, and this any farmer, who is an observer of the soils on which the several kinds of trees naturally and vigorously grow, can decide, without the aid of any chemical or mechanical analysis whatever. It would be absurd to plant the white oak in a morass by the side of the cypress, or the chesnut in a stiff clay, or hard-pan bottom, with the maple or elm ; and the locust and mulberry require a loose gravelly soil, or the trees will be weak and the wood inferior.

The preparation of any soil for planting trees is simple and plain. It must be made deep, and loose, and rich. If the nursery ground on which the seeds are to be sown is unlike that in which the trees are to stand, or which is proper for them, it should be brought by artificial means as near that state as possible. Thus, if too heavy, it must be trenched or drained; if not friable, deep ploughing or spading must be resorted to; if containing too much clay, gravel or sand may be added; and if not rich enough, or deficient in vegetable matter, manure or mold must be added till it is of the quality desired. If the plants are to be raised from seeds, no matter what the kind may be, the earth must be made fine previously to sowing, and the plants must be regularly hoed free from weeds. Top dressings of compost forked in between the rows will keep the land in good heart, and greatly accelerate their growth. In these respects, the treatment of fruit and forest trees does not essentially differ.

The time of planting the seeds from which the trees are to be grown, is usually the spring of the year, and always as early as the ground can be prepared for their reception. There can be no doubt, that in most cases, if the seeds could be preserved against worms, mice, &c. during the winter, it would be better to plant them in the fall of the year, as they are greatly aided in germinating by the action of the frost. The seeds of trees require but a shallow covering, merely enough to keep them from the air; as those that fall upon the earth, and are scarcely buried, if not otherwise disturbed, rarely fail of growing. The oak, walnut, chesnut, &c. are examples of this. Three years since we allowed the butternuts that fell from a tree growing in a grass plat, to lie where they fell. They were undisturbed through the winter, and when the grass was fit for mowing, the young trees occupied the whole ground. They were allowed to stand; and the next year we transplanted from that spot to a nursery, more than five hundred trees, nearly all of which are now living and vigorous. All seeds, nuts, acorns, &c. intended for planting should be carefully kept from heating, by being spread after gathering, and kept cool and dry until wanted for putting into the earth. Some have advised putting seeds in sand and preserving them dry and from the air in this way; and if the sand is pure and dry, it may answer, but if there is any dampness, the seeds will sprout or mold, and be rendered unfit for planting.

The maple, elm, and ash, are usually grown in this country from plants transplanted from the woods, and they can generally be found in sufficient numbers, particularly where lands have been partially cleared, and then by being enclosed, suffered to grow up again to timber. They may, all of them, however, be grown from the seed, sown in beds, and then transplanted to nurseries for cultivation, till their final transplantation. Where oak or chesnut lands are found, there is no difficulty in perpetuating these trees, as they spring up from the roots of the trees that are cut down, or from seeds already in the earth. Nothing more is required than to keep such lands fenced, until the young timber is beyond the reach of cattle or sheep. On what are called beach, and maple, and elm timbered lands, we frequently hear complaints that no young timber grows up: and the naked state of such woodlands proves the necessity of devising some way of growing young timber to take the place of that which decays by age, or is cut out for timber, fuel, or other purposes. Nothing is

wanted for this but to keep the woodlands enclosed, so that no animals shall be allowed to feed in them. If the seeds that vegetate are allowed to grow, there will be no want of young trees in any of our woodlands; if cattle or sheep can have access to them, they will certainly be browsed down and destroyed. Let those who wish to grow young timber in their woodlands, (and all who have not a large supply should do this,) pay attention to this, and they will in a few years find their grounds fully occupied.

There is some difficulty in taking trees from woodlands, and putting them in cleared lands; but if proper precautions are adopted in the removal, such as taking as many of the fine roots, and as much earth as can be made to adhere, they will generally succeed. Trees may be transplanted in the spring or fall, as best suits the convenience of the farmer. They will succeed any time after the year's growth of wood is completed, and before the next summer's growth begins. Evergreens will best bear transplanting later in the season. A variety of experiments seems to prove that they will do better as late as June than earlier in the season. As such trees, growing in woodlands, have usually but few fine roots, the custom has been adopted in Europe, and tried with success here, of cutting around the young tree at the distance of two or three feet, a year or two before removal, in such a way as to divide all the principal surface roots, and thus cause the formation of a great quantity of fine and vigorous roots near the body. The tree is then lifted from the earth, without disturbing the earth on the roots, and is transplanted in perfect safety and certainty of growing.

As in the propagation of the stones producing fruit trees, such as the cherry, plum and peach, the seeds germinate with more certainty after freezing, particularly in our latitudes; the stones should be planted in the fall of the year, and but slightly covered with earth, that this preliminary process may be ensured. In some instances where it was not convenient to plant in the fall, the benefits of freezing have been gained, by mixing them up with wet earth in a proper vessel, and having them frozen through the winter in that state. The danger of being destroyed by vermin may be thus avoided, and if put into properly prepared ground in the spring before germination commences, they vegetate with about equal certainty.

Silk-Worms Fed on Wet Leaves.

[FROM THE FARMER'S REGISTER.]

I have noticed for some time past every thing written on the subject of feeding and raising silk worms, that I could come across; and I believe the practice of feeding worms on wet leaves has been universally condemned; but in defiance of all the reasoning on the subject, and the condemnation of wet food, I have followed it, so far at least, with great success. I have never raised a great many worms, it is true, but it may be supposed, what would affect a large number ought to affect a small number. I will give you the manner in which mine were fed, and you can exercise your own pleasure about believing what I

state, though if necessary I can bring ample testimony to establish every word I say. I do not wish to be understood, however, as recommending wet food as the best for silk worms; but my opinion is, that wet leaves, occasionally, when it cannot be avoided, does no injury to them; as, for instance, in the long season of May, such as we had this year, my worms did not suffer at all that I could observe, from comparing them with others, where a good deal of pains had been taken. I gathered leaves for my worms every day until I would have a sufficient quantity left to pass over one or two days; and as soon as they were brought home, if in the morning they were sprinkled with water and laid in the shade, (for I have no cellar,) and if brought at evening they were put on the grass in the yard for the dew to fall on them to keep them moist; and with these wet leaves the worms were fed four times a day, as much as they would consume; and out of a lot of 10,000 I am confident that I did not lose more than fifty, save some that got injured by moving them about; for I had no fixtures at all for them except some boards. About 5000 of these worms, however, had been half raised before I got them; but when they came to me they shared the same fare with the others I had, of the same age, but considerably larger, and spun something earlier. Finding that the worms appeared to eat more greedily the moist leaves, I continued to moisten them and keep them so, and I never saw worms grow faster, or do better.

Last year I raised sixty worms only; and from a few days after hatching, they did not know what a dry leaf was, and they did remarkably well. In fact the leaves for this small parcel, for longer preservation, were kept sunk in water, and merely shaken well when about to be used. Of these worms, only one was lost (being killed by falling,) and the other 59 spun good cocoons, and furnished as many moths. Of these 12 only were females; out of their product I had this year between 3000 and 4000 worms. I did not pay as much attention to them as I did to the lot of 10,000, in keeping them as well fed and cleaned; and out of this lot I lost about 100, (that died,) but I do not think more; I do not attribute the loss of this 100 to the wet food, but to the filthy state I let them get into; they were not changed from the old hurdles or cleaned off for nearly three weeks. Had the same pains been taken with the last as with the first lot, it is my candid opinion not one would have been lost from disease. The cocoons were firm and good, (better than those exhibited here by Mr. Gay as the best quality of northern cocoons,) but were smaller than the others, orange colored, from the gray worms. These are white worms, and the cocoons of pale straw color. I am now feeding a few from the second hatching this year, and I make it a point every time they are fed to wet the leaves,—this I do to test the thing thoroughly; they are doing very well as yet, though they are small, and they have not come to the most critical period of their life; if they do well, and you think it worthy of notice, I will let you know.

If these remarks are worth your attention, you can use them as you please.

Respectfully,

A. L. ARCHER.

Petersburg, July, 1839.

[Mr. Archer is mistaken in supposing that feeding with wet leaves has been *universally* condemned—though the practice has been tried

by but very few persons, and still fewer have reported favorably. Among these few, though not in the Farmer's Register, is our correspondent, T. S. Pleasants, who this spring fed part of his first hatching on wet leaves, for experiment, and, like Mr. Archer, found no ill effect therefrom. But though not universally, the practice has been very generally, and very strongly condemned, and certainly by every author who has written directions for silk culture. This precept first came from Europe, and doubtless is necessary to be strictly observed in that moist climate. If not necessary here, or at least if it may be partially neglected without certain loss—and that the experiments of Messrs. Pleasants and Archer go conclusively to establish—the fact furnishes a new proof of the great superiority which we have in the greater dryness of our climate, which seems to counteract the evil of too much moisture in the food and litter. Without supposing that is any benefit to the worms in the water given, there will be a great gain to the feeder in his being relieved of all the trouble of drying, and delay in feeding, usually caused when the leaves are made wet by rain. The most interesting part of this statement, is that two successive generations of worms have been thus fed almost exclusively on wet leaves.

Though Mr. Archer is a young silk culturist, and has had very little opportunity to gain instruction from experience, there is no better authority for facts, and his testimony on this fact is as conclusive as if he had stored up all the existing knowledge, and errors, to be found in books, and also in old usages. If he had been previously more fully instructed and strongly impressed by all established authority, he would probably never have made this interesting and useful experiment, of a practice, which all authors, from Dandolo down to D'Homerque, would have pronounced an egregious error, which could not have any other than fatal effects. This is one of the thousands of cases, which we so much wish that all our readers would imitate, in which even a beginner, a mere novice in particular agricultural pursuit, may make observations and ascertain facts, the communication of which will afford new and important light to long experienced and the best informed culturists. There are very few observing men, who cannot teach some new and useful truths; and there are still fewer, even of the best informed farmers, who are too wise to be instructed by the communication.—*Ed. Far. Reg.*

Remarks.—We copy the above for the purpose giving one more caution. We knew that feeding with wet leaves will not always do harm; but we also know that it *will, sometimes*; and as we cannot know *when* it will do harm, we would caution all silk growers against the risk. We have had our whole crop destroyed by it twice in succession, and the Miss Waties, of South Carolina, lost all their worms, —about 1,000,000,—in 1830, from this cause. The disease induced by feeding with wet leaves, is not like the ordinary diseases of silk worms, a disease that may carry off a hundred or so of worms; on the contrary, it is a pestilence, or *plague*, that, when it gets a foothold, sweeps all before it. It is the *tripes*, against which we cannot be too much on our guard. There is one consideration that has been lost sight of by the persons who have succeeded in feeding with wet leaves; and that is, that even though the worms escape disease and death, sometimes, the evaporation from the wet leaves will necessarily

produce a moist atmosphere in the room. Will they contend that this can be any thing but an evil? Besides, the Chinese is also a dry atmosphere like our own—if feeding with wet leaves were not sometimes hurtful there, would *they* be so cautious in guarding against it? But we have done *our* duty. If any one shall be willing to try the experiment of feeding with wet leaves, and if, on trial, they shall be visited with the silk worm plague, the *tripes*, and thus lose their whole season's crop, they will, of course, exonerate us from any blame in the premises. For the good of the *cause*, we should be glad to see every silk grower exclude *damp leaves* from his cocoonery, as he would the infection of a plague from his family. Have we not seen persons expose themselves to the contagion of small-pox with impunity? But will any one say—'therefore the small-pox is not contagious?' Indeed, gentlemen, you are carrying this thing too far. The silk business, like all other human employments, has its drawbacks—its dangers, and this is one of the most formidable. Time will prove us correct in this.

G. B. S.

Okra, or Alvarado Cotton.

[FROM THE (COLUMBIA) SOUTH-CAROLINIAN.]

We earnestly recommend to the attention of our Cotton Planters, the advertisement of Mr. John S. Lott, in to-days' paper. The seed he advertises may be relied on as genuine; and after much conversation and correspondence on the subject, with highly respectable gentlemen of the best information and experience in relation to it, we feel assured that the kind far is superior, especially, for our poor or decayed lands, to any other yet discovered. We have no doubt that at least 1,200 weight to the acre, can be made from it, on our ordinary pine lands; and, with some little attention in manuring, perhaps as much as can well be picked out. In thus placing our planters on a footing with the Western ones, and rendering emigration unnecessary, its discovery, at this time, may well be looked upon as a Providential blessing, to the old plantation States.

The following notice of this Cotton, from the *Alabama Journal*, it will be perceived, strongly sustains and confirms the statements of Mr. Lott.

The Okra, Multiboled Alvarado Cotton.—We have been requested to notice this article, and give our opinion. We do so with much pleasure—for we have long since believed that it would be found the most valuable and productive of all the varieties of cotton now grown in this country. In the first place it will yield more to the acre, and on comparatively poor land, leaving the better lands, and more fertile, for the growth of corn, &c. In the next place, a hundred weight of it, in the seed, will yield *considerably* more amount. These facts may be easily tested. We give a fact already at hand an extensive planter of this neighborhood, weighed out 425 pounds of common or Petit Gulf, and an equal amount of the Alvarado, or Okra Cotton, and had it ginned under his own inspection, and the result was 425 Petit Gulf, yielded in lint 124 pounds; and 425 pounds Alvarado or Okra, 156 pounds.

PART III.

MISCELLANEOUS INTELLIGENCE.

Patent Butchering.—James Carson, M. D., of Liverpool has taken out a patent for what he calls a "New, quick, easy, and humane method of Slaughtering animals." The advantage of his method (of the mode of performing which his paper gives no description) as stated by himself are the following:

"An increase of the edible parts of a carcass to the amount of at least one-tenth beyond that which it would supply, by any mode of slaughtering hitherto in use. The meat thus obtained is more juicy, tender, and far better flavored. It sets sooner, and of course is earlier fit for use. It keeps much longer sweet and untainted. In some experiments made on meat killed in my mode, and some slaughtered in the usual way, at the same time and keep in the same place and circumstances, mine continued sweet, while the other gave the most unequivocal signs of incipient putrefaction. It never shrinks, but on the contrary enlarges in cooking; the fat being supplied with the juices which enrich the muscular or red portion is much more savory and is more acceptable to delicate palates, and is therefore the less wasted. It requires less time to cook. The centre of a large joint is done nearly as soon as the surface. These qualities are derived from the meat being less spongy, and a better conductor of heat, than meat obtained by any of the modes of slaughtering at present in use. It preserves well, and requires a much less quantity of salt."

If Mr. Carson has discovered a mode of slaughtering animals which will realize one fourth of the advantages he claims, he has made a discovery of great value, and we shall hope to hear of the speedy introduction of the patent mode of butchering in the United States.—*Genesee Farmer*.

Wool Markets.—The Pittsfield, Massachusetts Sun, states that the sales of wool in New Hampshire is ranging from 50 to 55, and one lot at Boscawen at 60 cents. At Poughkeepsie, sales have ranged from 50 to 60 for middling grades. We have also been informed that an agent of one of the largest manufacturing establishments in this country purchased two lots in New Lebanon, not of the first quality at 60 cents. We are pleased to think that the prospects are such as to enable the manufacturers to pay prices, that will remunerate the industrious tiller of the soil.

The use of Sulphur in preserving from Insects.—Is recommended by Dr. Mease, in the Domestic Encyclopedia. The recommendation is endorsed by the Editor of the Cultivator in his last number. He stated that dusted upon grapes, in the grape house, they have prevented mildew upon the fruit. "It is equally efficacious in the open ground, till the sulphur is washed or blown off. For many years, we have lost most of our early cabbages by a maggot which prayed upon the stem under ground. By mixing sulphur with the grout in which the roots of the plant are dipped before planting, the evil has been wholly prevented; and if the plants are plunged deep in the grout, so as to coat the base of the leaf stems, they are protected from the grub. If scattered upon the rows in young cabbages and radishes, before or after they are taken up, it would probably be efficacious in protecting both the tops and bottoms."—*New Eng. Far.*

The English Artichoke.—We have been requested by a gentleman of Mississippi to direct the attention of our farmers to the more extensive cultivation of the English Artichoke, as an excellent article of food for hogs. It is now cultivated by some of our farmers, but upon too small a scale, considering its great value. We learn that Judge Caruthers, and Mr. F. H. Gordon, of Smith county, have about 12 acres each, now growing, which will afford food for near four hundred hogs from the 1st of November till planting time.

The artichoke requires but little labor in tilling, and is very productive. The roots will remain in the ground safe during the whole of the winter; the stalk and the foliage furnishing an excellent protection from the frosts, and enriching the soil greatly. The hogs can be let on them the 1st of November, and remain till spring, when they will be in prime order. A portion of the ground cultivated should be set apart for seed—the seed to remain in the earth where it grows till spring—then taken and planted about the time sweet potatoes are planted, with about the same amount of seed per acre, thus four bushels of seed will plant an acre of ground, and require one ploughing and hoeing, and keep 30 or more hogs from the 1st November till spring. If our farmers do not pay more attention to this, they certainly are blind to their interest. Seed, we presume can be had quite plenty next spring.—*Southern Cultivator.*

Tomato Omelet.—Peel a quart of ripe tomatoes—chop and put them down to simmer for about twenty minutes with as much water as will cover them; chop a few onions very fine, and throw them in with crumbled bread and a lump of fresh butter—and when nearly done, beat up four eggs, and stir them in for a few minutes, and serve the omelet up.—*N. Y. Star.*

Berry Stains.—A friend requests us to state, that a teaspoonful of oil of vitriol mixed in a cup of water will without fail remove any berry stains from garments without injury to the cloth.

Custard without Eggs.—One quart of new milk, four table-spoonfuls of flour; two do. sugar; seasoned with nutmeg or cinnamon, and add a little salt. Set the milk over the fire, and when it boils pour in the flour, which should be previously stirred up in a little cold milk. When it is thoroughly scalded, add the sugar, spice and salt, and bake it either in crust or cups.

Homminy Pudding.—An excellent pudding may be made as follows: Take half a pint of fine homminy, soak it one night; in the morning boil it two hours and then proceed the same as in making rice pudding. The addition of an egg or two improves it.

Honey Dew.—George W. Johnson, in the Quarterly Journal of Agriculture, after enumerating, and, as he supposes, disproving the several theories which ascribes the honey-dew upon plants, insects and to the atmosphere, traces it, we think correctly, to a morbid state of the sap. He says—

“Heat, attended by dryness of the soil, as during the drought of summer, is very liable to produce an unnatural exudation. This is especially noticed upon the leaves of some plants, and is popularly known as *honey-dew*. It is somewhat analogous to that outbreak of blood which in such seasons is apt to occur to man, and arises from the increased action of the secretory and circulatory systems to which it affords relief. There is this great and essential difference, that in the case of the plants, the extravasation is upon the surface of the leaves, and consequently in proportion to the extruded sap, is their respiration and digestion impaired.”

The remedy which Mr. Johnson prescribes for this disease, for such it evidently is, is a solution of common salt and water, applied to a soil in which the plant is growing. For, says he,

“If we admit that the irregular action of the sap is the cause of the disorder, then we can understand that a portion of salt, introduced into the juices of the plant would naturally have a tendency to correct or vary any morbid tendency, either correcting the too rapid secretion of sap, stimulating it in promoting its regular formation, or preserving its fluidity. And that, by such a treatment, the honey-dew may be entirely prevented. I have often myself witnessed in my own garden, when experimentalizing with totally different objects. Thus I have seen plants of various kinds which have been treated with a weak solution of common salt and water totally escape the honey-dew, where trees of the same kind, growing in the same plot of ground, not so treated, have been materially

injured by its ravages. I have noticed that standard fruit trees, around which, at the distance of six or eight feet from the stem, I had deposited, at the depth of twelve inches, a quantity of salt, to promote the general health and fruitfulness of the tree, according to the manner formerly adopted to some extent in the apple orchards of cider countries, that these escaped the honey-dew, which infected adjacent trees, just as well as those which had been watered with salt and water. I am of opinion that one ounce of salt (chloride of sodium,) to a gallon of water is quite powerful enough for the intended to purpose."—*Cultivator*.

Multicaulis and White Mulberry Silk—The Norfolk Va. Beacon says:—"We have at our office a sample of silk made by one and the same worm, while feeding on the leaves of the *morus multicaulis* and the *morus alba*. The silk of the worm feeding on the *alba*, is yellowish and of inferior quality to that of the same worm feeding on the *multicaulis*, which is of a light straw color, and really a beautiful article.' There is a manifest absurdity in the foregoing paragraph, which deserves explanation—"one and the same worm," cannot make silk on the *multicaulis* and also on the white mulberry; it will make silk on the foliage of both given alternately or promiscuously, but in this case the comparative quality of *multicaulis* and white mulberry silk cannot be ascertained. We presume the editor means one and the same *species* or *variety* of worm, which would make the subject consistent and intelligible. It is doubtless one of those slips of the pen into which writers occasionally fall, when not perfectly acquainted with this subject.

The article, however, contains one important fact, which ought to be put to blush, the authors of the foolish and false declarations, that "good silk cannot be made on the foliage of the *multicaulis*." Hundreds of previous experiments have given the same results, and it is too late in the day to assert the contrary, with the feeblest expectation of having it believed.

Valuable Crops.—It is stated in the Baltimore American, that a gentleman of that city, has lately sold his growing *multicaulis* crop for the round sum of *thirty-two thousand five hundred dollars*. The trees are all growing on fifteen acres of land, and give an average gross profit of \$2,166,66 to the acre. We cannot estimate very correctly the cost of stock planted, but the expense of cultivation is a mere trifle; not exceeding the odd hundred dollars, at the highest calculation. This would formerly have been ranked among the larger class of stories, but in these days of wonder and astonishment, it is hardly worth relating.

A gentleman in Hartford county, Md. writes that another Baltimorean has sold his crop of *multicaulis* for *one hundred and twenty-five thousand dollars*—all growing upon twelve and a half acres of land, precisely ten thousand dollars to the acre. A few such crops would place a farmer in, what is now called, "comfortable circumstances," and, as the millionaire Astor says, make him just as well off as if he were rich.

Silk Culture. *What have we done?*—In reply to the question, what have we done in the establishment of the silk business in this country? it may fairly be answered:—

First. We have proved that the *multicaulis* may be grown in this country, by producing in the space of some half a dozen years, more of the true plant than can be found in all Europe.

Second. We have proved that the foliage from shoots of the same year's growth will furnish an abundant supply of food; and that one acre of such shoots will feed half a million of worms.

Third. We have proved that the *multicaulis* can be propagated and preserved through our winters with perfect safety; and that at an expense per acre, not exceeding that of cultivating the potato.

Fourthly. We have proved that our climate is most admirably adapted to the feeding and health of the silk worm, and that the silk produced, whether from the *multicaulis*, or the common mulberry, is of the best quality.

That these are facts, none acquainted with the subject will doubt; and if admitted, who can hesitate in admitting also, that the silk business can and will be successfully established in this country. We believe it will be, and that it will be both pleasant and profitable. Let the farmer then engage in the business, not by ruining himself in the mulberry speculation, but by procuring a few trees which he can rapidly multiply; by feeding a few worms to make himself familiar with their habits, and the methods of feeding; and then, when his trees are sufficiently

numerous, and regular markets for cocoons are established, he will find that his women and children in a few weeks, without materially interfering with domestic duties or education, will produce from his acre, or even half an acre of multicaulis, as much clear profit as he sometimes counts up from a year's labor, and the wear of his farm. Remember, if ever the United States is to be a silk growing country, the labor must be performed, and the profits shared by the farmer and his family. 'The production of the silk belongs to him; the manufacture must be completed *anywhere*.'—*Silk Culturist*.

Planting Mulberry Cuttings.—I prefer cuttings of one bud, for although some may fail to grow, I think the same number of buds, if planted singly, will produce more trees, and generally finer ones, than if planted double—or with two buds on each cutting. The ground being prepared much the same as for corn, lay it off in furrows three feet apart, with a small one horse plough, stick the cuttings in the bottom of the furrow, the bud on the south side, and the top of the cutting inclining to the north, say 45 deg., and cover the bud half an inch to an inch; and if this covers the top of the cutting the better. If a handful of white sand, should be dropped in the furrow previous to sticking in the cutting, and the cutting stuck through the sand, it would be of great service in making the cutting strike root, especially when the land is of itself not of a sandy nature.—*Jour. of the Am. Silk Society*.

Distance of Multicaulis Trees.—When multicaulis trees are grown too close together, the sun and air cannot penetrate their foliage, and hence the wood does not ripen well. It is a good plan, therefore, to plant them at least three feet apart each way if they are to be transplanted in the fall, and if to remain permanent, four feet one way and six feet the other. I attribute much of the loss by winter killing to this close planting, and believe that the grower will realize more by giving them the distance above stated, than he will by putting double the number of trees upon the ground; because although he will have but half the number of trees, they will be worth more than double those planted closely, in consequence of their larger size, and more matured wood. At three feet apart each way, an acre of ground contains 4,900 trees; at eighteen inches one way, and three feet the other, 9,800; and at one foot apart in the row, and the rows three feet apart, 14,700; allowing the ground to be a square, as there will be one row of trees more than there are rows of square yards, in consequence of the rows on each side occupying the outside of the square. For example, two rows of trees three feet apart each way, may be put upon a piece of ground three feet wide.—*Ibid*.

On Planting the *Morus Multicaulis*.—Little need be said, as it is generally understood to correspond very nearly with the planting and culture of Indian corn.

The ground to be made fine, furrows 3 or 4 feet apart, according to the fancy of the planter or the ground he has at command, the same as to distance in the furrow, some plant 12, some 10, some 2 feet apart. The more distant, of course, the more the tree will branch, and of course, the greater will be the number of buds; against this you must calculate the increased labor to be employed in the cultivation of a larger surface: the quantity of land, merely, being of little or no account, south of 'Mason and Dixon's line.' Some plant the layers or branches entire horizontally in the furrow, while others cut them up into one or two bud cuttings, and these are buried as you would corn. Much care should be taken in the first weeding, and after that the ordinary culture bestowed on corn. In the more eastern States, many start them in hot beds and some in pots, but that is unnecessary and would be impracticable in the south. Hot unfermented manure would be unsuitable. There is in fact no mystery or difficulty about *this part* of the business, that any man of common sense may not easily understand and overcome.—*Ibid*.

To Preserve Eggs.—Apply with a brush a solution of gum Arabic to the shells, or immerse the eggs therein; let them dry, and afterwards pack them in dry charcoal dust. This prevents their being affected by any change of temperature.

Maine Far,

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